### **SPECIFICATIONS:**

Model Number: B452

**Description:** 2-Way Bookshelf Speaker Pair

Woofer: 4-1/2" polypropylene cone with 4-layer coil

Tweeter: 5/8" polycarbonate with ferrofluid cooling

Finish: Black ebony pica vinyl on particle board

Power Handling: 30W RMS/60W max

**Impedance:** 6 ohms

Response: 85 Hz to 20,000 Hz
Sensitivity: 84 dB 1W/1m
Crossover: First order high-pass

**Terminals:** Quick-connect spring-loaded terminals

Other: Keyhole mounting bracket Dimensions: 9.5" H x 5.5" W x 5.7" D

Depth includes grill\*

**WARNING:** This product may contain a chemical or chemical[s] known to the State of California to cause cancer or birth defects or other reproductive harm.

#### **Warranty Information**

Dayton Audio products are constructed by industry experts and thoroughly tested before shipment. Dayton Audio products are warranted for the period of one year. This warranty is limited to manufacturer defects, either in materials or workmanship. Dayton Audio is not responsible for any consequential or inconsequential damage to any other unit or component, or the cost for installation or extraction of any component of the audio system. In the rare case of a product failure, please contact your place of purchase or call our Customer Support Department at (937) 743-8248.

#### **Warranty Limitations**

There are no other warranties, either expressed or implied, that extend the foregoing, and there are no warranties of merchantability or fitness for any particular purpose. The warranty will not cover incidental or consequential damage due to defective or improper use of products. This includes but is not limited to burnt voice coils, overheating, bent frames, holes in the cone, or broken lead wires.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Non-Warranty Service: If non-warranty service is required, the product may be sent to the Company for repair/replacement, transportation prepaid, by calling (937) 743-8248 for details, complete instructions, and service fee charges.



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# 4-1/2"2-WAY BOOKSHELF SPEAKER PAIR

Model: B452 User Manual



Dayton Audio® Last Revised: 3/9/2015

<sup>\*</sup> Grill is removable, acoustically-transparent cloth

Congratulations on your purchase of the Dayton Audio® B452 speakers. These subcompact-sized speakers are designed to produce balanced, natural sound with excellent sonic detail that rivals many more expensive speakers. Please read on to discover how to get the most from your new speakers.

# 1) Parts Inventory

The B452 speaker package includes the following items:

- 1 pair of Dayton Audio B452 speakers
- 1 pair of 2-conductor red/black speaker cables

## 2) Installation Tools

No tools are required for installation of the B452 speakers. Additional tools and hardware may be required for wall mounting.

## 3) Speaker Placement

Because of their well-behaved off-axis response and excellent dispersion, your new Dayton Audio speakers are less critical to position than most loud-speakers. Often, simply placing them where they best fit into the decorating scheme is all that is necessary for exceptional performance. The B452 speakers feature a wall hanger on the rear of the enclosure to facilitate safe wall mounting.

**CAUTION:** The B452 speakers are compact in size, but substantial in weight. When wall-mounting or shelf-mounting the B452 speakers, be sure that the wall hanger or shelf is anchored to the structure of the building via a stud or drywall insert, to prevent falling of the loudspeakers and potential injury.

If you are inclined to go through a more rigorous positioning exercise, the following paragraphs will help you achieve all the performance that your system is capable of.

Carefully select a few recordings. Choose recordings made with simple arrangements and strong vocals by a single performer. Physically small sound sources localize much more precisely. Placement of horns, strings, vocals, and drums will snap into focus when the loudspeakers are optimally positioned.

Start with the speakers directly in front of your primary listening position. Avoid hard vertical edges within 3 or 4 feet of either side of the cabinet. Position the cabinets about 1-2 feet out from the wall. Listen to one of the selected recordings paying close attention to the positions of the instruments and vocalist. Move the speakers a few inches at a time, returning to the listening position to evaluate the results. Once placement is optimized, the vocalist will be firmly positioned in front of the instruments and the instruments will seem to

be between or behind the loudspeakers. If possible, position your speakers to that when you are seated in the primary listening position your ears are 10-12 feet from the tweeter. Viewed from your seat, the angle between the speakers should be 30 to 60 degrees.

Pay special attention to the bass. The relation between bass response and room position is critical. Adjust the position of the speakers closer to or further away from walls so that the bass levels are in proportion with the rest of the musical spectrum.

Loudspeaker positioning can be time-consuming, but the rewards justify the effort.

## 4) Speaker Connection

Use the supplied speaker wire or other good quality wire for the connection between your Dayton Audio loudspeakers and the amplifier. For longer runs, heavier wire should be used. For proper performance the speakers must be "phased" correctly. To insure proper phasing, connect the red speaker terminals to the red amplifier terminals and the black speaker terminals to the black amplifier terminals. All two-conductor wire is marked in some way to help you do this. One side will be marked with a colored stripe, a raised rib, or a different colored conductor. Use the marked side for the "red" connections.

# 5) Caring For Your Speakers

Clean your speakers by wiping with a damp, lint-free cloth. The finish of your speakers can be maintained and enhanced by periodic use of a surface protection such as "ArmorAll". The grills may be vacuumed, gently tapped, or brushed to remove dust and debris.

**POWER RATING NOTE:** Almost any speaker can be used successfully with almost any amplifier. Conversely, almost any speaker can be damaged by almost any amplifier-despite either unit's power rating. The published power rating is accurate only if the volume level is never set above the point of audible distortion. Distortion is an indication that the amplifier or loudspeaker is operating beyond its design limits, and damage may occur – often within seconds. If you hear distortion, immediately reduce the volume. The B452 is designed to be used with stereo equipment rated from 5 to 60 watts and from 4 to 8 ohms.

Dayton Audio loudspeakers are designed to reproduce music and speech in a home environment at moderate volume levels. When used within their limits Dayton Audio loudspeakers will provide many years of trouble free performance.